REMARKS/ARGUMENTS

Claims 1-15 are pending in the application; the status of the claims is as follows:

Claims 1-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,862,264 to Ishikawa et al ("Ishikawa").

35 U.S.C. § 103(a) Rejection

The rejection of claims 1-15 under 35 U.S.C. § 103(a), as being unpatentable over Ishikawa, is respectfully traversed based on the following.

A summary of Ishikawa was included in Applicant's prior response and is not provided here for brevity. In the response filed June 30, 2003, Applicant argued that the process of Ishikawa whereby the portions of the edge image GE1 that fall under the threshold Th (FIG. 17A) are removed from the edge image GEa1 (FIG. 17B) does not reduce a density difference. In response, the current Office Action argues:

> However, Ishikawa clearly teaches generating of corrected edge image GEa1 by erasing the minute edge images GEm from the edge image GE1 (col. 12, lines 43-44) and then encoding said corrected edge image GEa1 by reversible image compression (col. 12, lines 51-52). In other words, Ishikawa fully discloses reducing a density difference within the edge image region detected by the edge detection means (as disclosed in col. 12, lines 36-38), and compressing the image data within the edge region (i.e. the corrected edge image GEa1) where the density is reduced.

Applicant respectfully submits that this analysis confuses reducing a *density* with reducing a *density difference*.

In contrast to the cited reference, claim 1 includes the steps of:

> a density conversion unit for reducing a density difference within the edge region detected by said region detector;

> a compression unit for compressing the image data within the edge region *where the density difference is reduced* by said density conversion unit, using discrete cosine transform ... (*italics added*)

By removing the minute edge region of GE1, Ishikawa certainly reduces the overall density of the edge region. However, that is not what is claimed in claim 1. Claim 1 claims reduces the density *difference*. That is, the difference between the higher density pixels and the lower density pixels is reduced (*see* Applicant's written description page 10, line 6 – page 11, line 16). That means that the density of the highest pixels are lowered, the density of the lowest pixels is raised, or both.

Ishikawa teaches the opposite. The density of the lower density pixels that are below a threshold Th are reduced to zero (FIG. 17(B)), while the density of the pixels above the threshold are unchanged. This actually *increases* the density difference between the lower pixels (which are reduced to zero density) and the higher density pixels. Thus, Ishikawa not only does not teach reducing a density difference as in claim 1, it teaches away from this limitation of claim 1. Thus, the cited reference does not show or suggest "reducing a density difference within the edge region." To support a *prima facie* case for obviousness based on a single reference, the reference as modified must show or suggest every limitation of the claim. MPEP §2143.03. Thus, the cited reference does not support a *prima facie* case for obviousness and claim 1 is not obvious over the cited prior art. Claims 2-5 are dependent upon claim 1. A claim that is dependent upon a non-obvious claim is also non-obvious. MPEP §2143.03. Therefore, claims 2-5 are also non-obvious.

Also in contrast to the cited prior art, claim 6 includes the steps of:

> detecting an edge region within an image data;
> reducing a density difference within the edge region;
> compressing the image data within the edge region where the
> density difference is reduced, using discrete cosine transform ...

As noted above, the cited references do not show or suggest reducing a density difference in an edge region and encoding that region using a discrete cosine transform.

- 3 -

Therefore, claim 6 is not obvious over the cited prior art. Claims 7-10 are dependent upon non-obvious claim 6. Therefore, claims 7-10 are also non-obvious.

Also in contrast to the cited prior art, claim 11 includes a computer program product that performs the steps of:

> detecting an edge region within an image data;
> reducing a density difference within the edge region;
> compressing the image data within the edge region where the
> density difference is reduced, using discrete cosine transform ...

As noted above, the cited references do not show or suggest reducing a density difference in an edge region and encoding that region using a discrete cosine transform. Therefore, claim 11 is not obvious over the cited prior art. Claims 12-15 are dependent upon non-obvious claim 11. Therefore, claims 12-15 are also non-obvious.

Accordingly, it is respectfully requested that the rejection of claims 1-15 under 35 U.S.C. § 103(a) as being unpatentable over Ishikawa, be reconsidered and withdrawn.

CONCLUSION

Wherefore, in view of the remarks, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are earnestly solicited.

If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any other fee required for such Petition for Extension of Time and any other fee required by this document pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not

submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

By: _____
Douglas A. Sorensen
Registration No. 31,570
Attorney for Applicant

DAS/llb:bar
SIDLEY AUSTIN BROWN & WOOD LLP
717 N. Harwood, Suite 3400
Dallas, Texas 75201
Direct: (214) 981-3482
Main: (214) 981-3300
Facsimile: (214) 981-3400
October 8, 2003

DA1 272956v4